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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,387	06/20/2001	Ari Salomaa	796.397USW1	4803

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EXAMINER
FAHMY, SHERIF R

ART UNIT	PAPER NUMBER
2633	7

DATE MAILED: 03/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/885,387	Applicant(s) SALOMAA, ARI	
	Examiner Sherif R. Fahmy	Art Unit 2633	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 June 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Iwano, EP 0 732 786 A1 ("Iwano").

Regarding claim 7, Iwano teaches an arrangement for monitoring wavelengths of optical signals traveling in an optical fiber, wherein it includes:

A narrowband optical filter, which can be controlled (fig. 4- 13), and in which the interdependence is known between the wavelength of the control signal and the wavelength of the optical signal obtained from the filter output (col. 5- line 43 to col. 6- line 12 describe a process by which said interdependence is known).

A light detector (14), and a control electronics circuit (22 and 16) connected to the input of the filter on the one hand and on the other hand receives the electric signal given by the light detector.

3. Regarding claim 8, the control electronics circuit forms a control signal, the value of which scans sliding over the entire control range (col. 5- lines 46-53).

4. Regarding claim 9, the control electronics circuit forms a control signal, the value of which obtains desired values only (col. 5- line 56 to col. 6- line 2 describes the CPU only scanning a desired sub-range of the initial range).

5. Regarding claim 10, storing means are inherent to the teaching of Iwano, not only since a CPU is generally understood to be fully operational only in conjunction with storing means, but additionally since Iwano specifically teaches that based on detected wavelength peaks, the CPU is controlled to monitor a particular peak. This necessarily implies that the control value corresponding to a particular wavelength that corresponds to a particular peak is stored. Otherwise, the sweeping to detect peaks and the subsequent control based on the detected values would have been impossible. (See col. 5- line 43 to col. 6- line 12).

6. Regarding claim 11, the arrangement of Iwano includes a microprocessor (22, and col. 5- lines 38 to col. 6- line 15).

7. Regarding claim 12, the arrangement of Iwano includes an optical directional coupler (12).

8. Regarding claim 1, Iwano teaches a method of monitoring wavelengths of optical signals traveling in an optical fiber, including the steps of: conducting the optical signals to a narrowband optical filter which can be controlled, and in which the interdependence is known between the output wavelength and the control signal (see discussion of claim 7 above), converting the optical signal into an electric signal (14 in fig. 4), adjusting the filter by changing the control signal in such a way that the window formed by its pass band will slide withing the wavelength range being examined, determining the filter control signals corresponding to the peak values of the obtained electric signal, and determining the wavelengths corresponding the control signals (fig. 4- and corresponding discussion).

9. Regarding claim 2, though Iwano does not specifically mention that the control signal is an electrical signal, such is inherent from the fact that the filter is movable mechanically (col 4-

lines 38-44) to move the bandpass window, and that the only controllers used in the art operate in the electrical domain. Controllers and processors are known only to operate in the electrical domain. Persons skilled in the art know that electro-mechanical control is necessary, as no other type of signal other than electrical may be output from an electric controller to effect a mechanical change.

10. Regarding claim 3, storage in memory is inherent to the teaching of Iwano. See discussion of claim 10 above.

11. Regarding claim 4, the method taught in Iwano relies on the dependence stored to determine filter control signals corresponding to peak values of the electric signal and to determine the corresponding wavelengths (col. 5- lines 43-53).

12. Regarding claim 5, the window formed by the passband slides over the wavelength range being examined (col. 5- lines 43-53).

13. Regarding claim 6, the filter control signal is adjusted so that the window formed by the pass band will be transferred to the desired wavelength (col. 5- line 56 to col. 6- line 2).

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Obhi, Jackel, Kinoshita, Yoshida, Bayart, and Nakabayashi are cited for disclosing use of controlled tunable optical filters to monitor wavelength channels systems having multiple wavelength channels.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sherif R. Fahmy whose telephone number is 703-305-8088. The examiner can normally be reached on 8:30AM-6:00PM(Mo-Th) 8:30AM-5:00PM(2nd & 4th Fr).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on 703-305-4729. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3988 for regular communications and 703-305-3988 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4800.

SRF
March 17, 2003

JASON CHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600